

Abstract of the Disclosure

A transmission circuit includes first and second amplifiers, a bandpass filter, a phase adjuster, and a signal combiner. The first and second amplifiers independently amplify input signals in different transmission frequency bands. The first amplifier in the ON state produces an unnecessary radiant wave in a frequency band substantially coinciding with the transmission frequency band of the second amplifier in the OFF state. The bandpass filter extracts a component in the same frequency band as that of an unnecessary radiant wave leaking out from the second amplifier during operation of the first amplifier. A phase adjuster adjusts the phase of an output signal from the bandpass filter such that the phase of the output signal from the bandpass filter becomes opposite to that of an unnecessary radiant wave in an output signal from the first amplifier. The signal combiner combines an output signal from the phase adjuster with the output signal from the first amplifier.